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(56) Documents Cited

GB 2340731 A	WO 99/00307 A1	CH 000569458 A
JP 090290901 A	US 5314151 A	US 4979706 A
US 4535911 A		

(58) Field of Search
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INT CL⁷ B65B 67/12, B65F 1/00 1/06 1/14
ONLINE: EPODOC, JAPIQ, WPI

(54) Abstract Title
Device for suspending bag on bin

(57) A bag 6 is suspended from an upper region of a wheelie bin 13 by a removable attachment 1. The attachment 1 may engage the lid hinge 8 of the bin so that the bag hangs externally of the bin as shown, or engage the rim of the bin so that it and the bag extend inside (Figure 9-11) or outside (Figure 12-14) of the bin. The bag may receive material for recycling. Attachment 1 may be of metal or plastics and include a horizontal bar on which part of the bag periphery may be received and retained by means such as spring clips. Such clips or other closure means may serve to hold the bag closed. The attachment may hook or clip on to the bin hinge or rim.

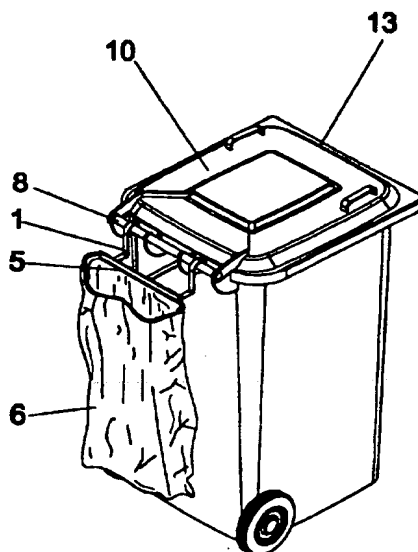


Fig.8

The claims were filed later than the filing date but within the period prescribed by Rule 25(1) of the Patents Rules 1995.

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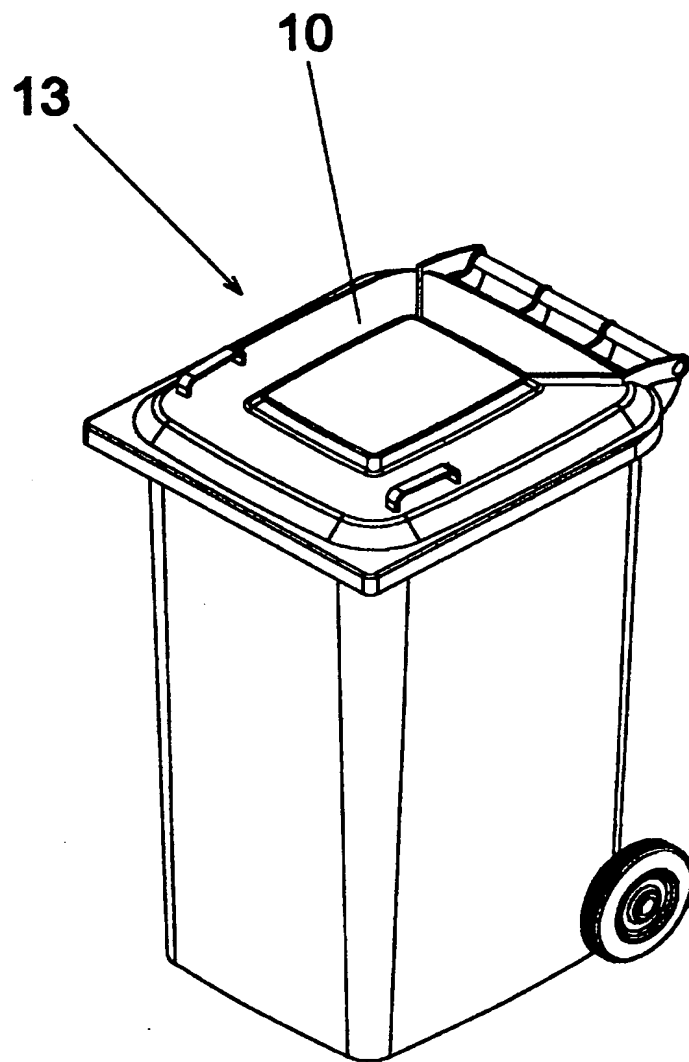


Fig.1

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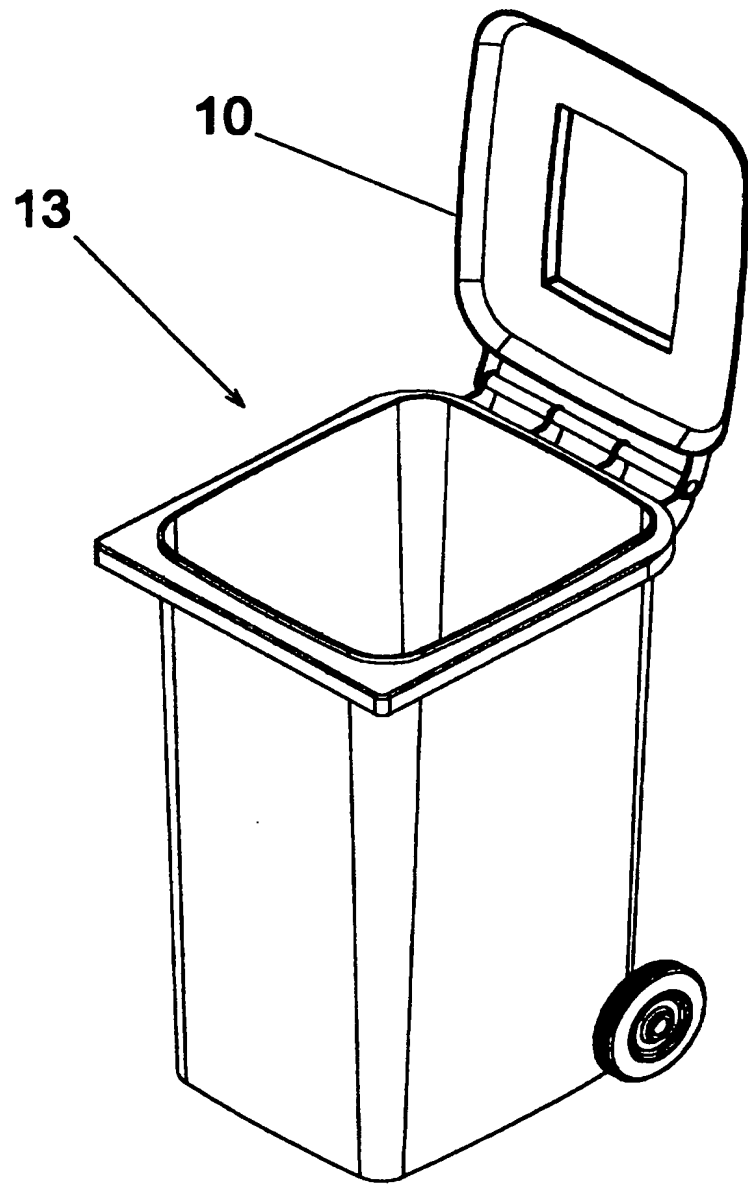


Fig.2

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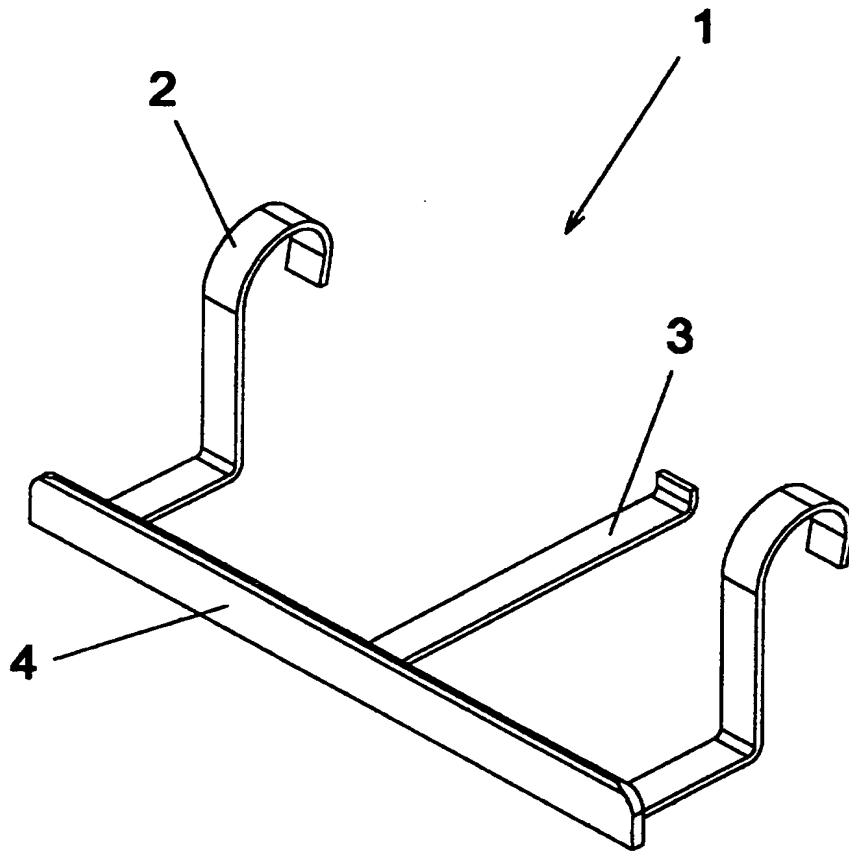


Fig.3

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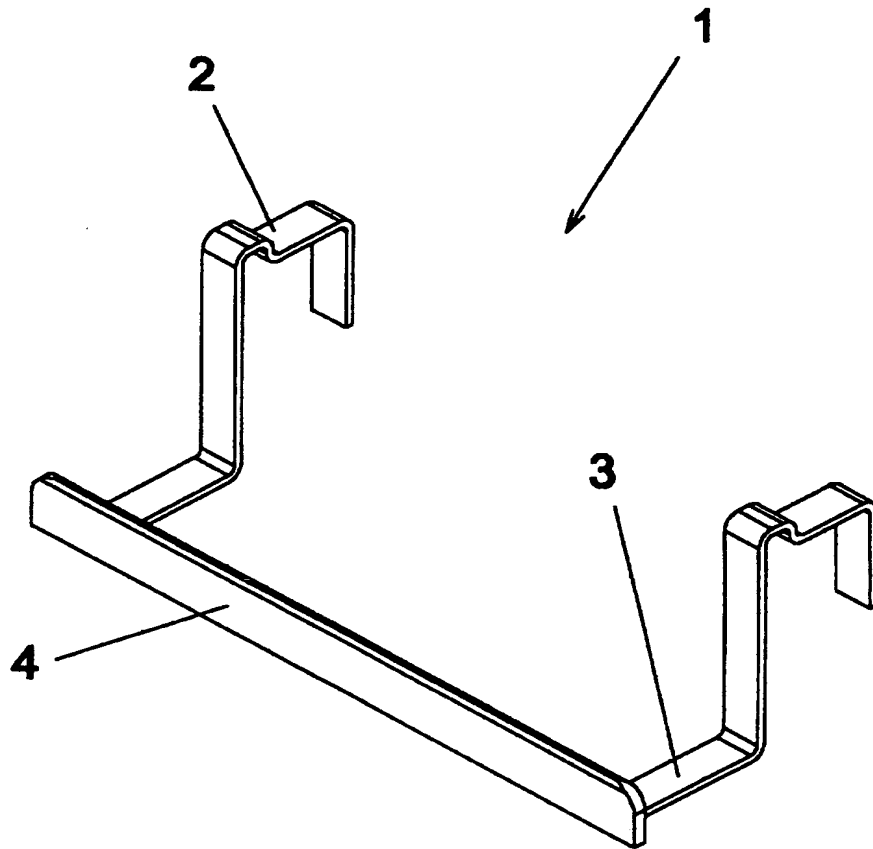


Fig.4

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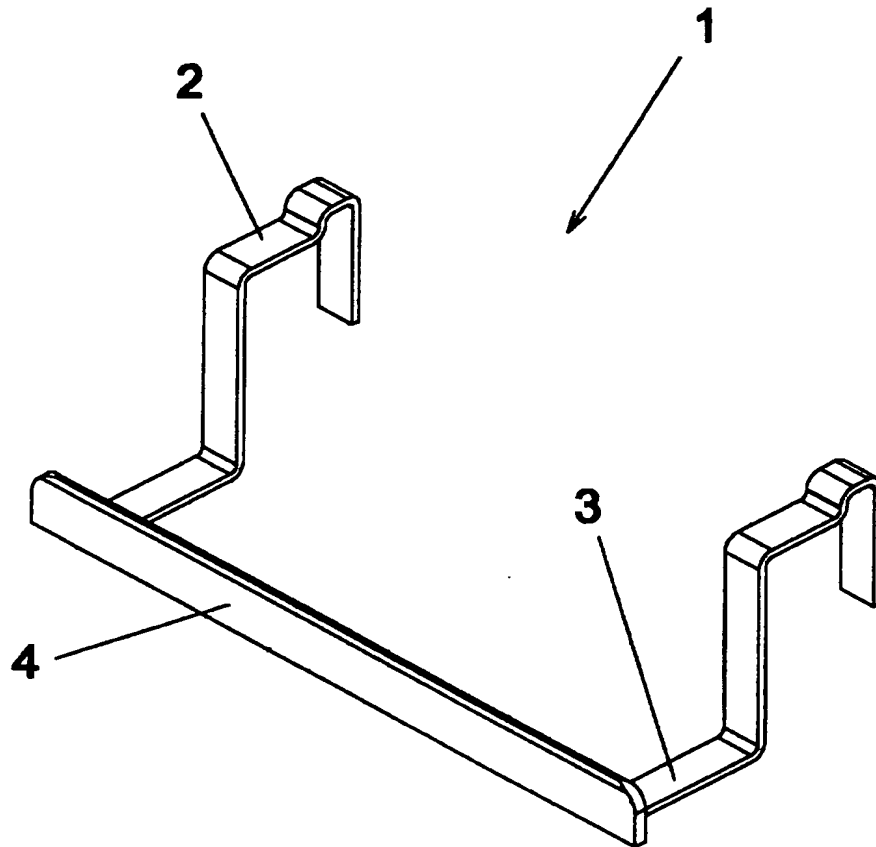


Fig.5

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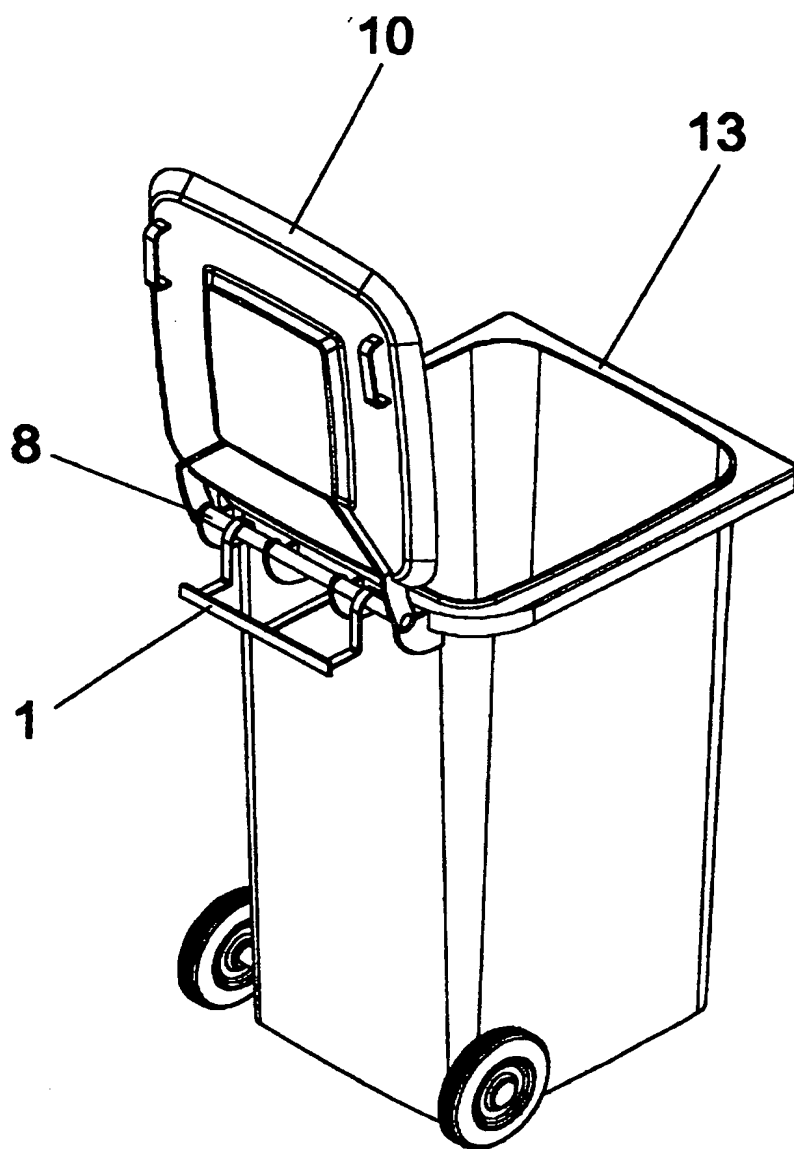


Fig.6

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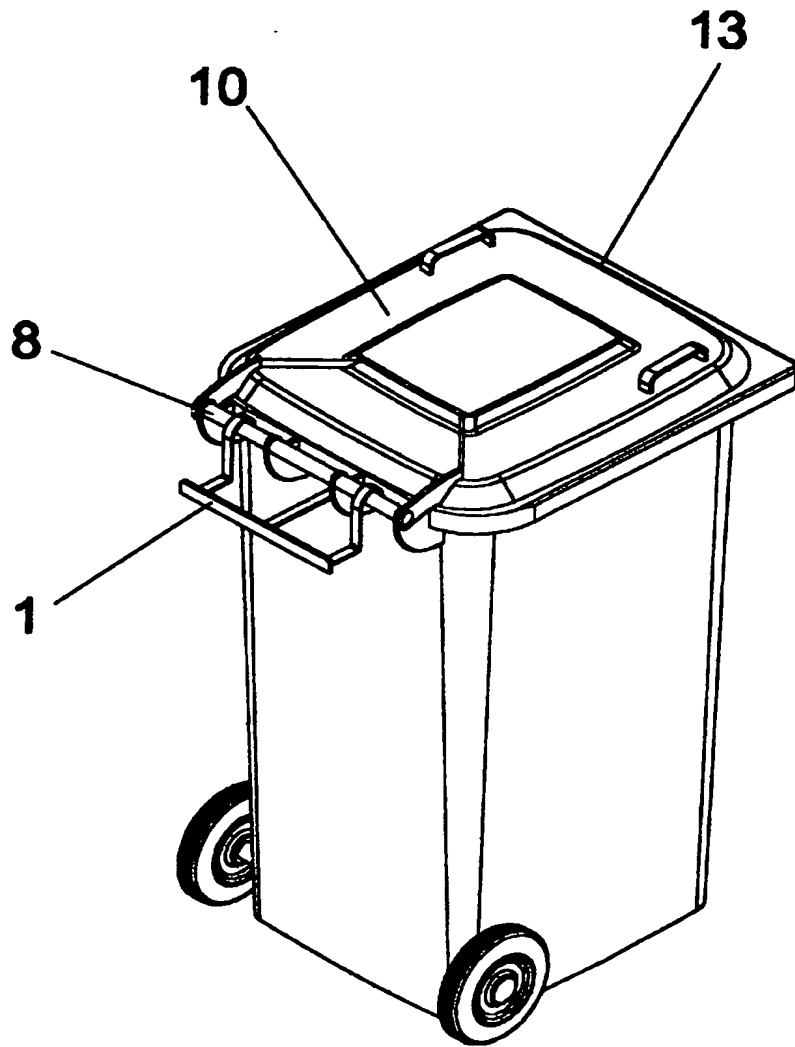


Fig.7

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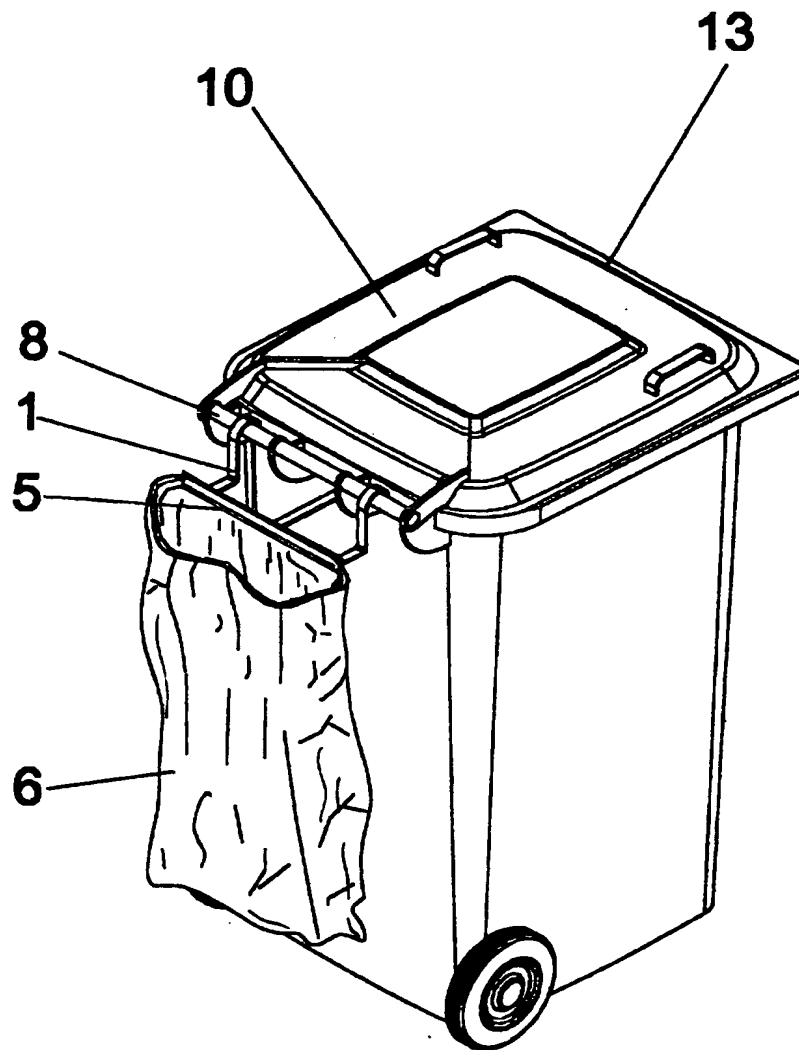


Fig.8

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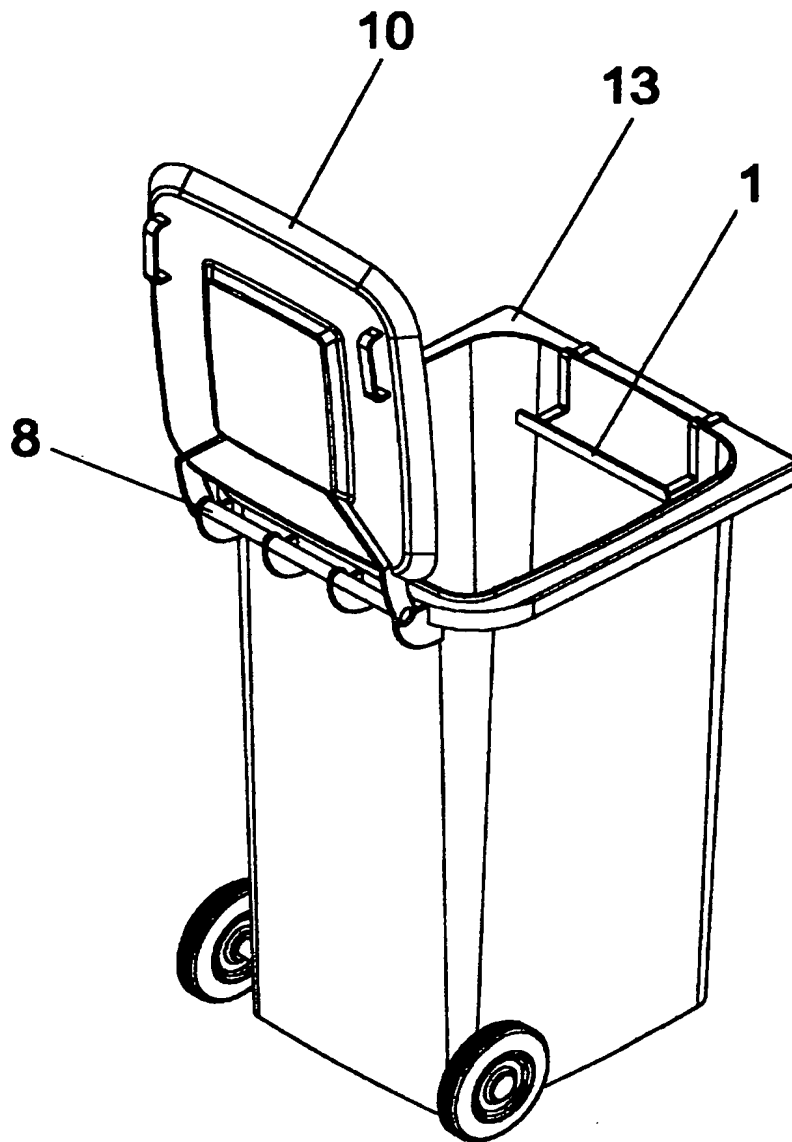


Fig.9

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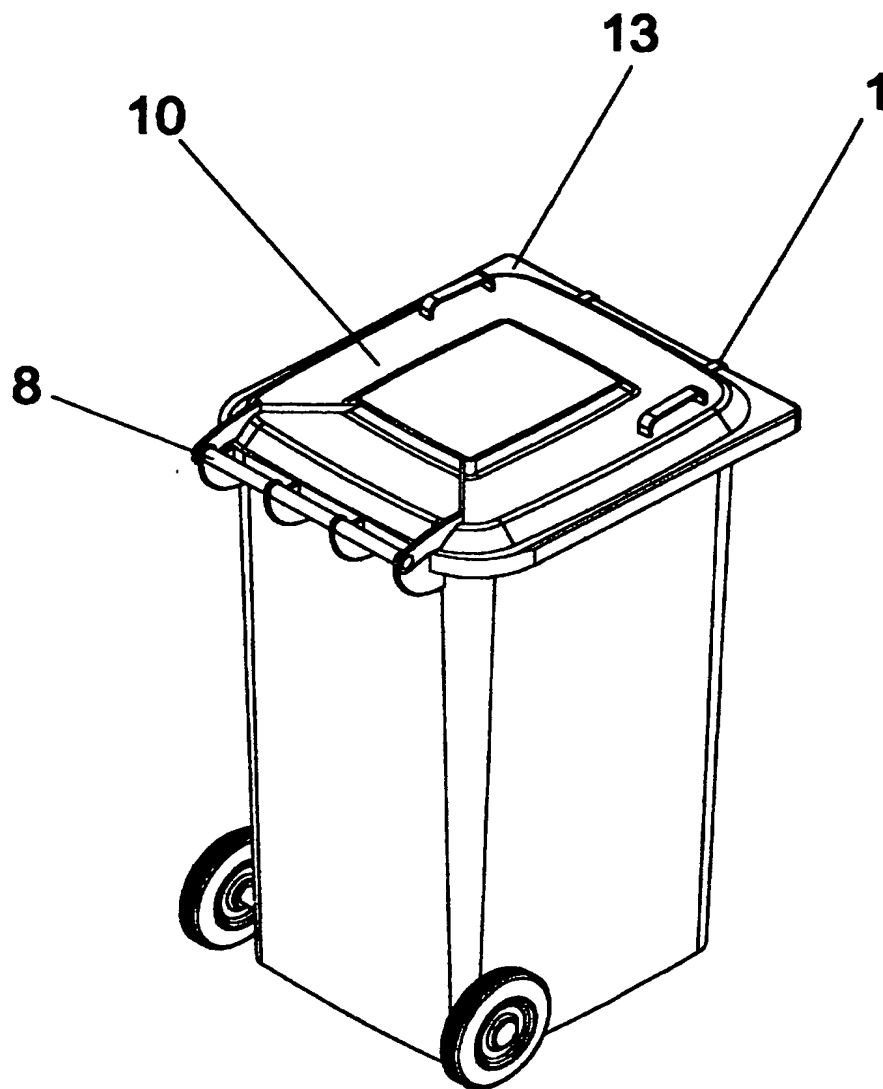


Fig.10

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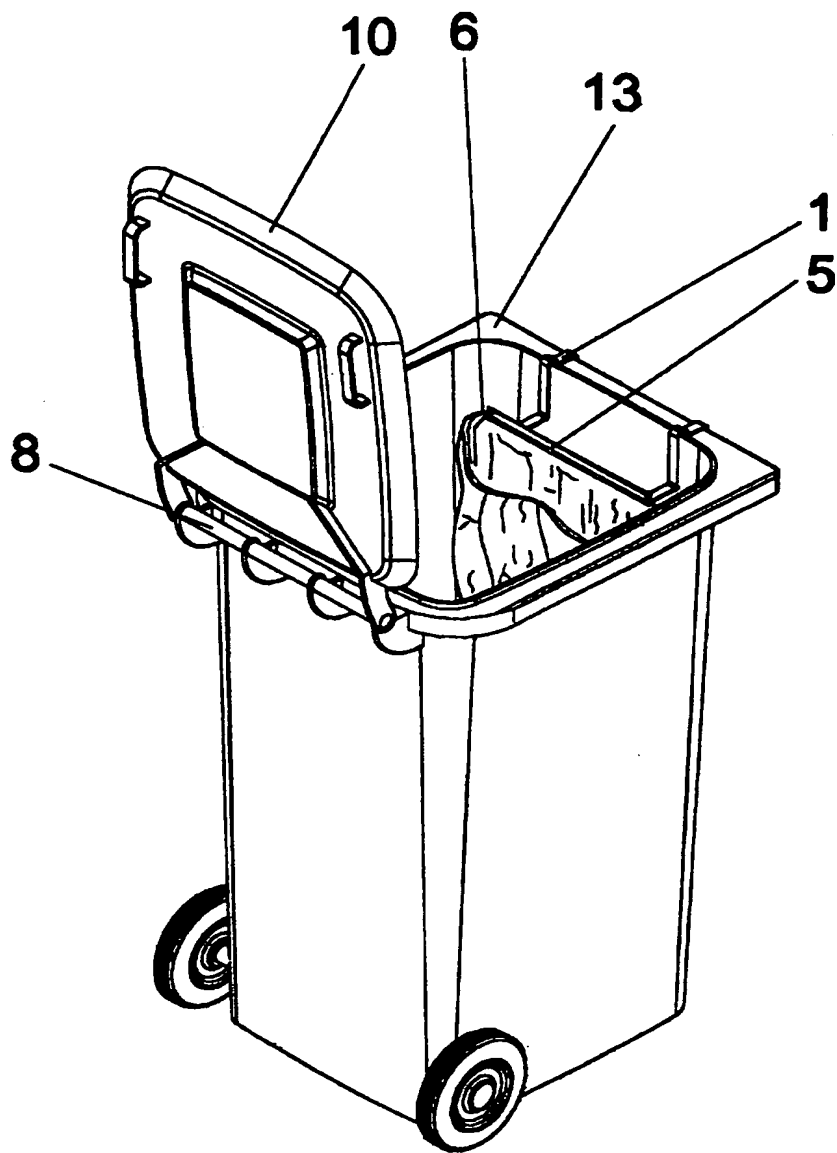


Fig.11

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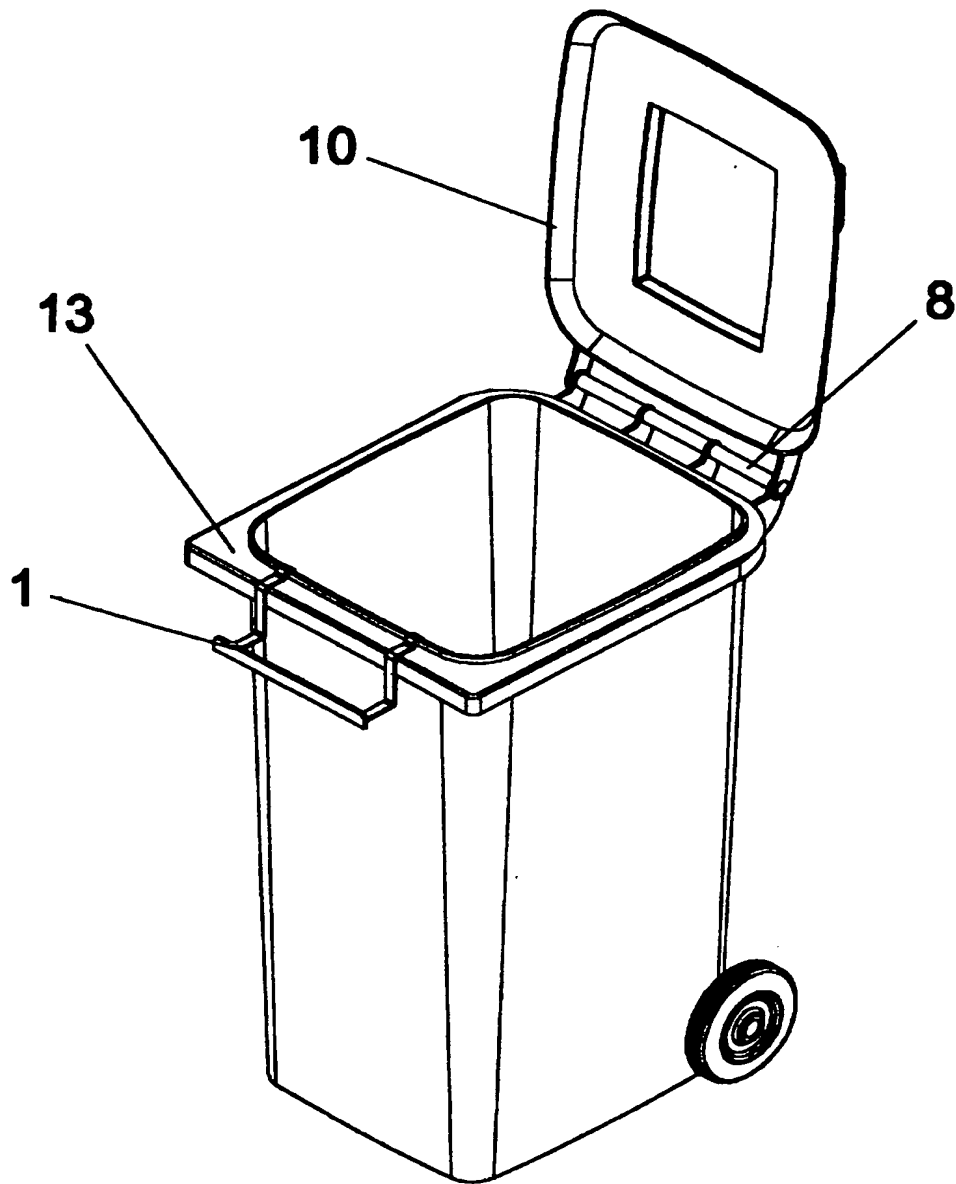


Fig.12

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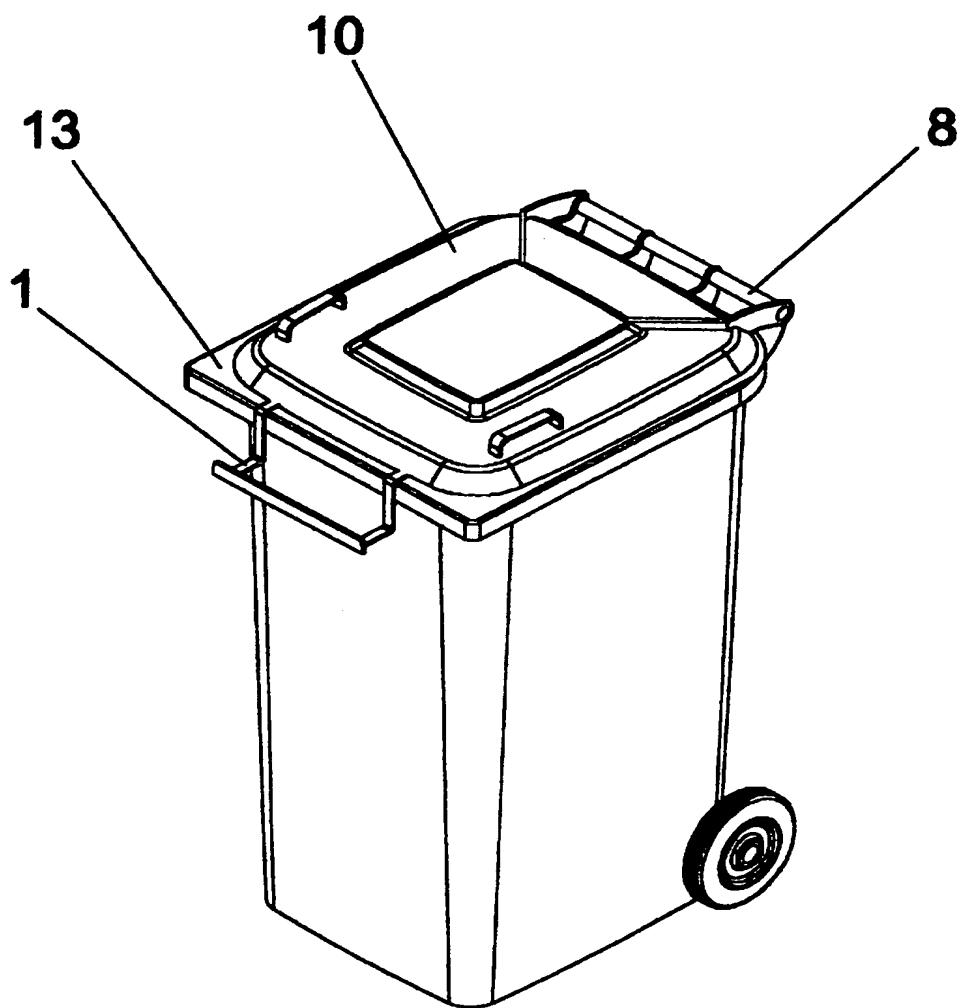


Fig.13

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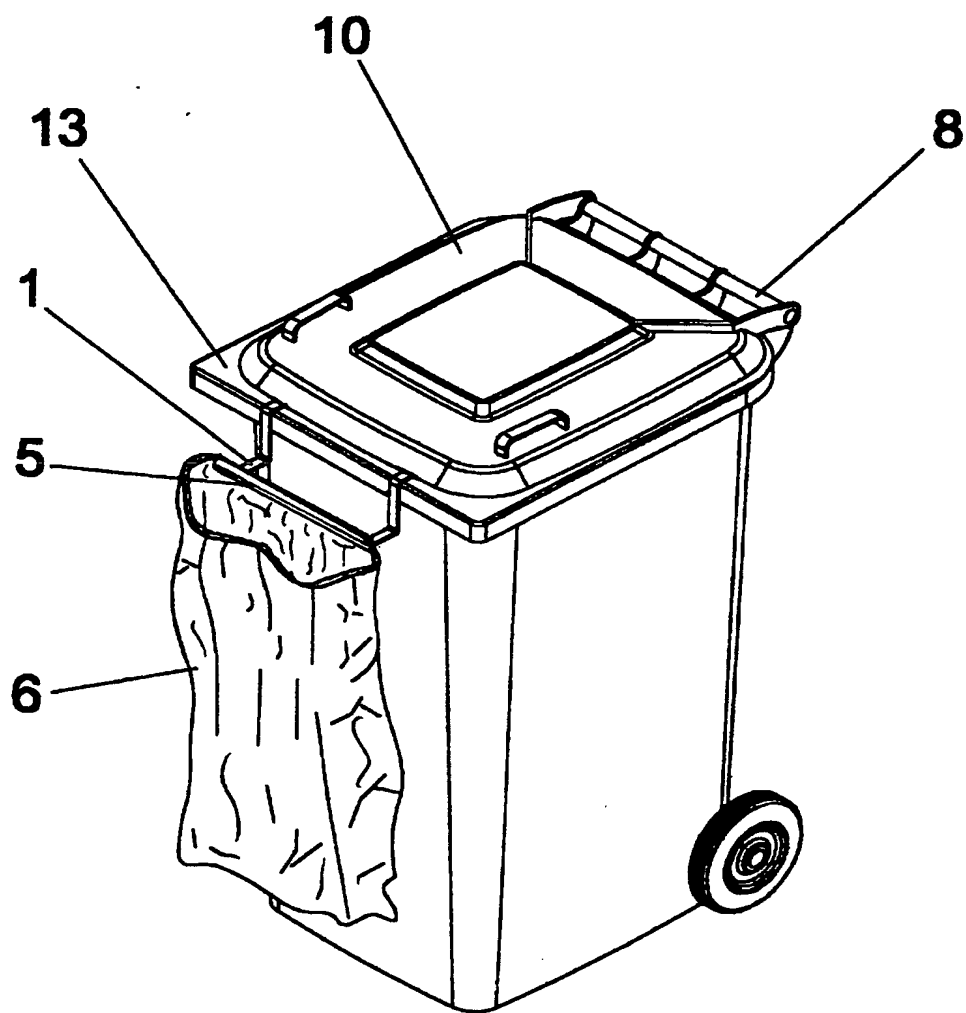


Fig.14

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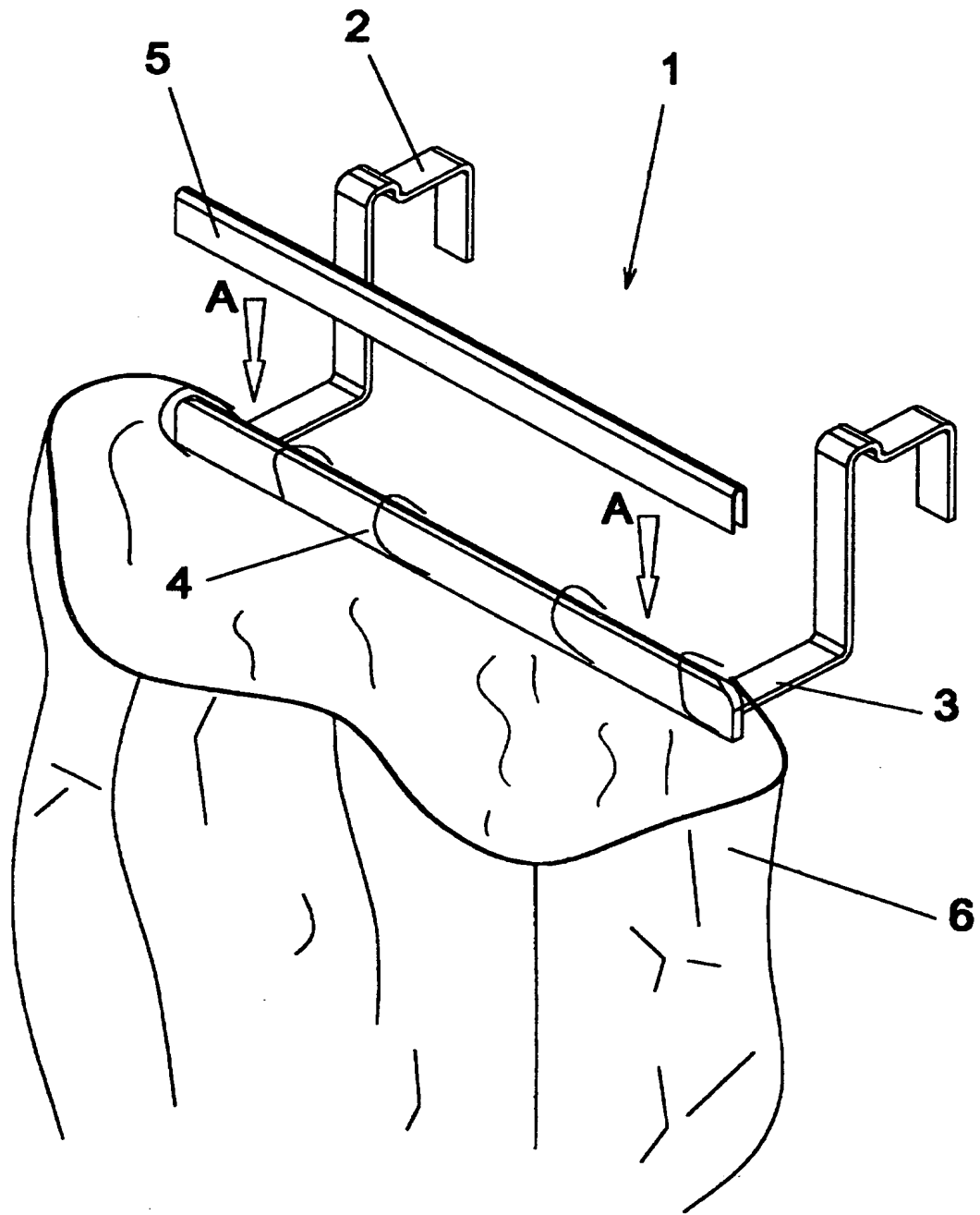


Fig.15

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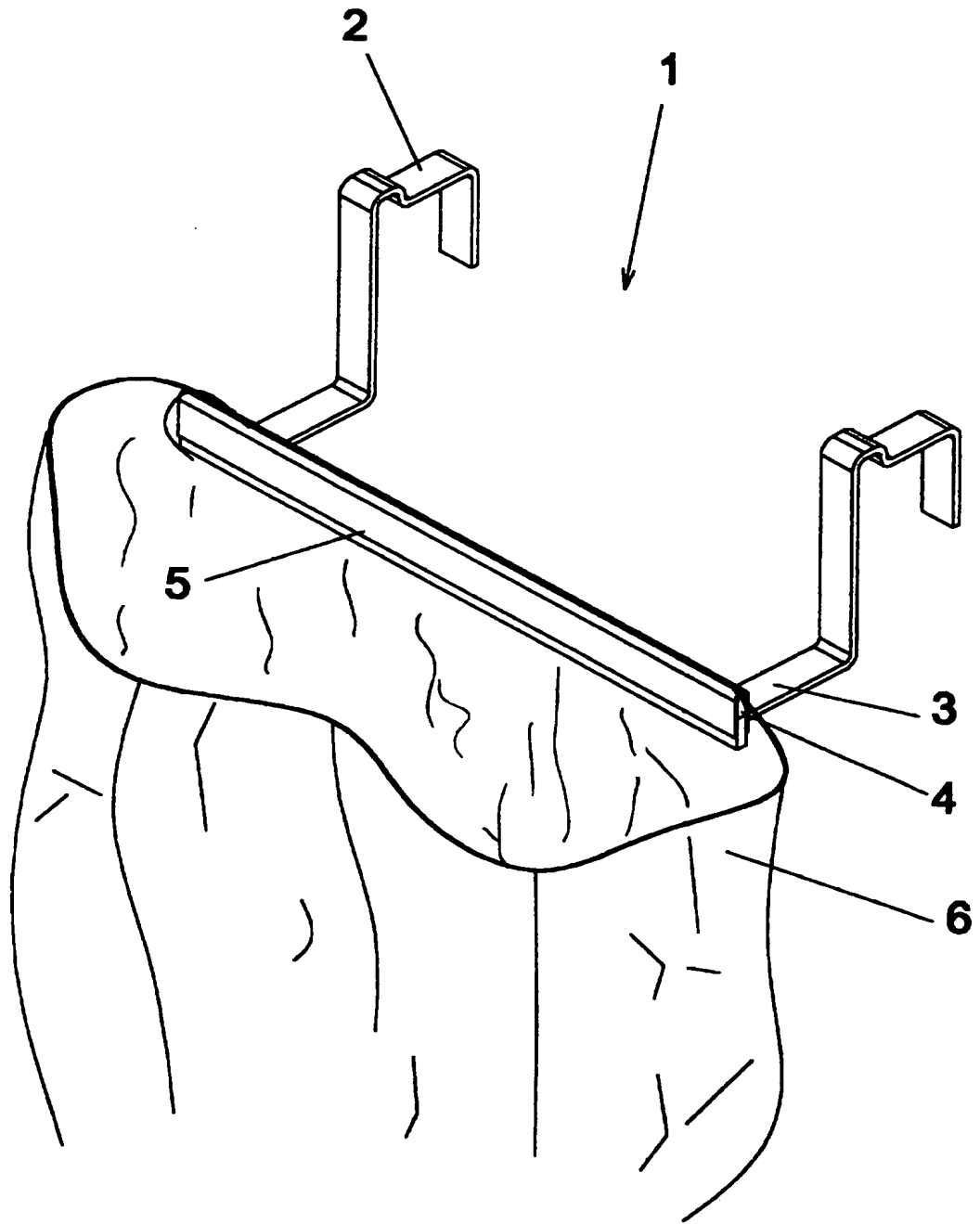


Fig.16

Holder Clip

This invention relates to an attachment for use with "wheelie-bins".

More particularly it relates to a holding device used to attach a bin-liner, re-cycling sack, or garden sack to either the inside or outside of a wheelie-bin. Whenever the holding device is deployed, it provides a convenient storage and means of holding bags or sacks in close proximity to the wheelie-bin.

The re-cycling bag or sack is thus presented at a convenient height and attitude for easy use, and requires no additional supporting structure other than the bin itself.

Wheelie-bins are well known throughout the UK as the prime method used to temporarily store domestic rubbish and waste until collected by the Refuse Department. Wheelie-bins serve the same function as the old type of galvanised steel bin which they have superceeded, but additionally provide a more easily emptied and movable form of rubbish storage and collection vessel.

Wheelie-bins are often stored outside the private residence in a convenient location for every-day useage, such useage being for depositing domestic, and kitchen waste until collection, usually once a week.

Refuse departments, in their effort to play a positive roll in the fight against environmental pollution and waste; have in some areas decided to encourage private residents and small businesses to recycle many of the waste products they normally discard.

Such items which are usually collected and re-cycled include plastic bottles, plastics, paper products, and metals especially aluminium and steel.

To collect these valuable recyclable materials, coloured sacks are issued each week by the respective Refuse Department or District Council to every domestic residence covered by the re-cycling scheme. Said coloured sacks are commonly made from polythene however any commonly available material is equally applicable.

Herein lies the problem, which is overcome by this invention; there is no satisfactory means of holding and storing these recycling sacks on the domestic site.

Traditionally this problem is overcome by leaving the bag on the floor, however drawbacks of this method are that the bag is not conveniently positioned, nor is it convenient to use, and usually it will be stored indoors at some distance from the other waste collection facility, the wheelie-bin.

Additionally bags stored at ground level offer a hazard to pedestrian movement.

Storage of these coloured sacks presents a problem for most households, they look untidy and use up valuable space. The clip holder of this invention eliminates many of these problems by using the wheelie-bin dustbin itself to assist in the storage of the recyclable materials by forming a structure to which the clip holder is attached. The holder clip thus forms a convenient bag holder in close proximity to the bin without any additional structural supporting frame being required.

The wheelie-bin dustbins used throughout the UK and in many other countries are commonly constructed from moulded plastic. Wheels are often incorporated for ease of transport from the house to the dustcart; hence the name wheelie-bin. The lids of these wheelie-bin dustbins incorporate hinges which are designed to act as lifting anchorage when the bin is emptied, and handles whenever the bin is manually moved. It is in this region, around the top lip of the bin and the handle area that the holder clip is attached, and where the sack is fastened in a suitable position and attitude always ready for use.

The Objectives

Accordingly it is a primary objective of this invention to provide a holder for temporarily attaching bags or sacks onto the structure of the wheelie-bin, usually by means of hanging a frame from the top lip or handle of the bin to which the bag or sack is attached and deployed ready for use.

The intended usage of the clip holder of the invention being to provide a bag holder attachable to the wheelie-bin, that does not impede with the everyday usage of the bin, and that resides attached to the bin until the bin is collected, whereupon it is removed prior to the bin being emptied.

Additionally it is an objective of this invention to provide an attachment means whereby the bag or sack is removably fixed to the clip holder of the invention by suitable means described later in this document. Such attachment functioning to retain the bag in position whilst enabling the aperture of the bag to be openable for use as previously described elsewhere.

Additionally it is a further objective of this invention to provide means of temporarily closing the bag to prevent ingress of rain-water, flies, and to keep the bag closed and stored neatly.

Other objects of the invention, along with numerous features and advantages, will become more clear from the summary of the invention, and the detailed description of the preferred embodiments, described below and further in this document.

Summary of the invention

Accordingly the objects of the invention referred to above, are achieved by way of summary, in a clip holder that attaches to a wheelie bin in a removable and temporary fashion; is easy to put into place and deploy; that holds the bag or sack in a suitable position enabling it to be filled; and that incorporates a closing device of types well known and readily available to temporarily seal the bag whilst it is attached to the holder clip of the invention.

The holder clip of the invention clipping or attaching to the wheelie-bin without modification to either, and being intended to be removed by the home owner or corporate owner of the bin prior to the bin being emptied by the Refuse Department, whereupon the holder clip of the invention is intended to be re-used and attached to the empty bin, on an ongoing periodic basis.

Methods of Construction

The holder clip of the invention can be constructed from many materials known to those experienced in their particular field, and the design of the invention will vary dependent upon the types of material chosen, and the manufacturing methods chosen.

The possible variation of designs of the invention are too exhaustive to mention but will commonly include the following:

Fabrication and weld from black mild steel will be the initial method of manufacture of holder clip, but it is envisaged that a wide variety of methods and materials will be used in later production of holder clip, such as steel pressed parts, plastic injection moulding, composite resin moulding, aluminium lost-wax casting, steel sand casting, glasssfibre GRP laminate moulding, and wood.

The holder clip of the invention will vary in design dependent upon the intended method of sales and distribution of the product; although not deviating from the features previously summarised and detailed, the holder clip of the invention will be available as a self-assembly product and will thus vary in appearance but not function. Methods of self-assembly and flat-pack supply include nuts & bolts, stud welding, drilling & tapping, spot welding, rivets, adhesives etc. and many other forms of fastening of the type well known to those experienced in their particular field.

The invention summarised in the previous pages of this document will now be described by way of example with reference to the accompanying drawings.

Preferred embodiments of the holder clip of the invention identified generally by reference numeral 1 are depicted in Figures 1 through to 16.

Figure 1. shows a perspective view of a typical "Wheelie-bin" 13 or wheeled bin 13, here shown with the lid 10 closed.

Figure 2. shows a perspective view of a typical "Wheelie-bin" 13 or wheeled bin 13, here shown with the lid 10 open.

Figure 3. shows a preferred embodiment of the holder clip 1 of the invention.

Figure 4. shows another preferred embodiment of the holder clip 1 of the invention.

Figure 5. shows another preferred embodiment of the holder clip 1 of the invention.

Figure 6. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.3, shown attached to a wheelie bin 13 with lid 10 open.
(Bag not shown)

Figure 7. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.3, shown attached to a wheelie bin 13 with lid 10 closed.
(Bag not shown)

Figure 8. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.3, shown with a bag or sack 6 deployed.
Shown attached to a typical wheelie bin 13.

Figure 9. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.4, shown attached to a wheelie bin 13 with lid 10 open.
(Bag not shown)

Figure 10. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.4, shown attached to a wheelie bin 13 with lid 10 closed.
(Bag not shown)

Figure 11. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.4, shown with a bag or sack 6 deployed.
Shown attached to a typical wheelie bin 13.

Figure 12. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.5, shown attached to a wheelie bin 13 with lid 10 open.
(Bag not shown)

Figure 13. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.5, shown attached to a wheelie bin 13 with lid 10 closed.
(Bag not shown)

Figure 14. shows a perspective view of a preferred embodiment of the holder clip 1 as shown in Fig.5, shown with a bag or sack 6 deployed.

Shown attached to a typical wheelie bin 13.

Figure 15. shows a preferred embodiment of the holder clip 1 of the invention including a typical retaining device 5 and bag 6.

Figure 16. shows a preferred embodiment of the holder clip 1 of the invention including a typical retaining device 5 and bag 6.

As best shown in Figures 3 and 6, a preferred embodiment of the holder clip 1 of the invention is shown in Figure 3, and in Figure 6 shown deployed and attached to a typical wheelie-bin 13.

See Figures 1 and 2 for a perspective view of a typical wheelie-bin of the well known type in common use for domestic and small business waste collection; reference numeral 13 indicates the bin and numeral 10 the lid of the bin.

As shown in Figure 3 a preferred embodiment of the holder clip 1 of the invention is shown schematically, and can be seen to incorporate features as follows:

One or more latches, hook-like arms, or clip-like devices 2. One or more distance pieces 3; and at least one location and retaining device 4. Other parts are incorporated into the clip holder of the invention which are not shown as they are of types previously well known.

Referring now to Figures 6 and 7 schematic perspective views of the wheelie-bin 13 are shown with the holder clip 1 of the invention attached to the handles 8.

It can be seen that the holder clip 1 does not impede with the use of the bin, and that the holder clip 1 of the invention clips or attaches to a typical wheelie-bin 13 without modification being required.

This is achieved in its' most simple embodiment by means of at least one hook-like arm 2 which extends from the holder clip 1 and engages with the handle 8 of the bin 13. The engagement being such that the holder clip 1 of the invention can be easily positioned in place; and later removed whenever required and re-deployed on an continuous basis.

In this preferred embodiment of the invention gravity is used to retain the holder clip in position as shown, however it is envisaged that other methods such as suction cups, adhesive, velcro, and spring-loaded devices and latches will be used.

Figure 3 also shows at least one distance piece 3 used to support and maintain the holder clip 1 at a desirable position for easy use. Additionally the holder clip 1 of the invention also incorporates a location, holding, and retaining device 4 to which the bag or sack is located and removably secured.

Referring now to Figures 8, 15, and 16 it is shown that the bag or sack is attached to the holder clip 1 of the invention by a retaining device 5; and is removably fixed by a retaining device 5 such that it is temporarily held until removed as required.

Arrows 'A' indicate just one of many possible directions in which the holding device 5 is offered up to the holder clip 1 in order to retain the bag 6.

Figure 16 shows the bag 6 secured to a preferred embodiment of the invention by a typical retaining device 5 of a well known type.

Dependent upon the type of retaining device 5 chosen, the bag or sack 6 is secured by folding a part of the peripheral edge of the bag 6 over the locating device 4.

Other types of retaining device 5 would require the bag 6 to remain unfolded.

The retaining device is usually a clip 5, or other sprung device of a well known type.

A means of bag closure is incorporated into the holder clip 1 of the invention to provide means of temporarily closing the bag 6 to prevent ingress of rain-water, flies, and to keep the bag 6 closed and stored neatly.

The closing means performed by a closure device incorporated into the frame of the holder clip 1 or as one or more closure devices attachable to the clip holder 1, or attachment means wherever and whenever required.

Said closure device functioning to close the opening of the bag 6 or sack 6 so that the bag 6 is held temporarily closed, and openable in an easy and simple manner, and functions to be continuously re-useable until such time that the bag 6 is to be emptied.

It should be noted that the closure device will in certain circumstances function as a retaining device 5 thereby retaining the bag 6 or sack 6 to the holder clip 1.

Typical closure devices of well known types would include, but not be restricted to some of the following:- spring clips, pegs, clothes pegs, tape, glue, Velcro, split rubber tubing, magnetic strips, drawstrings, split plastic tubing, wedge-like action, edge binding, self-sealing bags, string and cord etc.

As shown in Figures 4 and 9, a preferred embodiment of the holder clip 1 of the invention is shown in Figure 4, and in Figure 9 shown deployed and attached to a typical wheelie-bin 13.

See Figures 1 and 2 for a perspective view of a typical wheelie-bin of the well known type in common use for domestic and small business waste collection; reference numeral 13 indicates the bin and numeral 10 the lid of the bin.

As shown in Figure 4 a preferred embodiment of the holder clip 1 of the invention is shown schematically, and can be seen to incorporate features as follows:

One or more hook-like arms, or clip-like devices 2. One or more distance pieces 3; and at least one location and retaining device 4. Other parts are incorporated into the clip holder of the invention which are not shown as they are of types previously well known.

Referring now to Figures 9 and 10 schematic perspective views of the wheelie-bin 13 are shown with the holder clip 1 of the invention attached to the rim of the wheelie-bin 13. It can be seen that the holder clip 1 does not impede with the use of the bin, and that the holder clip 1 of the invention clips or attaches to a typical wheelie-bin 13 without modification being required.

This is achieved in its' most simple embodiment by means of at least one hook-like arm 2 which extends from the holder clip 1 and engages with the rim of the bin 13. The engagement being such that the holder clip 1 of the invention can be easily positioned in place; and later removed whenever required and re-deployed on an continuous basis.

In this preferred embodiment of the invention gravity is used to retain the holder clip in position as shown, however it is envisaged that other methods such as suction cups, adhesive, velcro, and spring-loaded devices and latches will be used.

Figure 4 also shows at least one distance piece 3 used to support and maintain the holder clip 1 at a desirable position for easy use. Additionally the holder clip 1 of the invention also incorporates a location, holding, and retaining device 4 to which the bag or sack is located and removably secured.

Referring now to Figures 11, 15, and 16 it is shown that the bag or sack is attached to the holder clip 1 of the invention by a retaining device 5; and is removably fixed by a retaining device 5 such that it is temporarily held until removed as required.

Arrows 'A' indicate just one of many possible directions in which the holding device 5 is offered up to the holder clip 1 in order to retain the bag 6.

Figure 16 shows the bag 6 secured to a preferred embodiment of the invention by a typical retaining device 5 of a well known type.

Dependent upon the type of retaining device 5 chosen, the bag or sack 6 is secured by folding a part of the peripheral edge of the bag 6 over the locating device 4.

Other types of retaining device 5 would require the bag 6 to remain unfolded.

The retaining device is usually a clip 5, or other sprung device of a well known type.

A means of bag closure is incorporated into the holder clip 1 of the invention to provide means of temporarily closing the bag 6 to prevent ingress of rain-water, flies, and to keep the bag 6 closed and stored neatly.

The closing means performed by a closure device incorporated into the frame of the holder clip 1 or as one or more closure devices attachable to the clip holder 1, or attachment means wherever and whenever required.

Said closure device functioning to close the opening of the bag 6 or sack 6 so that the bag 6 is held temporarily closed, and openable in an easy and simple manner, and functions to be continuously re-useable until such time that the bag 6 is to be emptied.

It should be noted that the closure device will in certain circumstances function as a retaining device thereby retaining the bag 6 or sack 6 to the holder clip 1.

Typical closure devices of well known types would include, but not be restricted to some of the following:- spring clips, pegs, clothes pegs, tape, glue, Velcro, split rubber tubing, magnetic strips, drawstrings, split plastic tubing, wedge-like action, edge binding, self-sealing bags, string, and cord etc.

As shown in Figures 5 and 12, a preferred embodiment of the holder clip 1 of the invention is shown in Figure 5, and in Figure 12 shown deployed and attached to a typical wheelie-bin 13.

See Figures 1 and 2 for a perspective view of a typical wheelie-bin of the well known type in common use for domestic and small business waste collection; reference numeral 13 indicates the bin and numeral 10 the lid of the bin.

As shown in Figure 5 a preferred embodiment of the holder clip 1 of the invention is shown schematically, and can be seen to incorporate features as follows:

One or more hook-like arms, or clip-like devices 2. One or more distance pieces 3; and at least one location and retaining device 4. Other parts are incorporated into the clip holder of the invention which are not shown as they are of types previously well known.

Referring now to Figures 12 and 13 schematic perspective views of the wheelie-bin 13 are shown with the holder clip 1 of the invention attached to the rim of the wheelie-bin 13. It can be seen that the holder clip 1 does not impede with the use of the bin, and that the holder clip 1 of the invention clips or attaches to a typical wheelie-bin 13 without modification being required.

This is achieved in its' most simple embodiment by means of at least one hook-like arm 2 which extends from the holder clip 1 and engages with the rim of the bin 13. The engagement being such that the holder clip 1 of the invention can be easily positioned in place; and later removed whenever required and re-deployed on an continuous basis.

In this preferred embodiment of the invention gravity is used to retain the holder clip in position as shown, however it is envisaged that other methods such as suction cups, adhesive, velcro, and spring-loaded devices and latches will be used.

Figure 5 also shows at least one distance piece 3 used to support and maintain the holder clip 1 at a desirable position for easy use. Additionally the holder clip 1 of the invention also incorporates a location, holding, and retaining device 4 to which the bag or sack is located and removably secured.

Referring now to Figures 14, 15, and 16 it is shown that the bag or sack is attached to the holder clip 1 of the invention by a retaining device 5; and is removably fixed by a retaining device 5 such that it is temporarily held until removed as required.

Arrows 'A' indicate just one of many possible directions in which the holding device 5 is offered up to the holder clip 1 in order to retain the bag 6.

Figure 16 shows the bag 6 secured to a preferred embodiment of the invention by a typical retaining device 5 of a well known type.

Dependent upon the type of retaining device 5 chosen, the bag or sack 6 is secured by folding a part of the peripheral edge of the bag 6 over the locating device 4.

Other types of retaining device 5 would require the bag 6 to remain unfolded.

The retaining device is usually a clip 5, or other sprung device of a well known type.

A means of bag closure is incorporated into the holder clip 1 of the invention to provide means of temporarily closing the bag 6 to prevent ingress of rain-water, flies, and to keep the bag 6 closed and stored neatly.

The closing means performed by a closure device incorporated into the frame of the holder clip 1 or as one or more closure devices attachable to the clip holder 1, or attachment means wherever and whenever required.

Said closure device functioning to close the opening of the bag 6 or sack 6 so that the bag 6 is held temporarily closed, and openable in an easy and simple manner; and functions to be continuously re-useable until such time that the bag 6 is to be emptied.

It should be noted that the closure device will in certain circumstances function also to retain the bag 6 or sack 6 to the holder clip 1.

Typical closure devices 5 of well known types would include, but not be restricted to some of the following:- spring clips, pegs, clothes pegs, tape, glue, Velcro, split rubber tubing, magnetic strips, drawstrings, split plastic tubing, wedge-like action, edge binding, self-sealing bags, string, and cord etc.

Regardless of the preferred embodiment, the holder clip of the invention equipped as one or more of the multitude of forms described within, allows convenient and expeditious deployment of bags or sacks without requiring any supporting structure other than the wheelie-bin itself.

Though the embodiments previously described are preferred, numerous changes and modifications which do not deviate from the true scope of the invention are apparent, being too exhaustive to mention, and will be apparent to those skilled in the art.

Accordingly, all such changes and modifications are intended to be covered by the following claims:

CLAIMS

1. **A holder clip (1) attaching to the upper region of wheely bins(13) of well known types, said holder clip(1) deploying sacks or bags(6) for the convenient collection of recyclable household waste,such when ever deployed,the holder clip(1) is removeably fixed to said wheely bin(13).**
2. **A holder clip as Claimed in claim 1, the said holder clip(1) attaches externally to the handle(8) of the wheely bin(13) such that the plastic sack or bag(6) is deployed open ready for use.**
3. **A holder clip as Claimed in claim 1, said holder clip(1)attaches internally over the upper rim of the wheely bin(13) such that whenever the lid of the wheely bin is closed the plastic sack or bag is concealed and guarded from the weather.**
4. **A holder clip as Claimed in claims 1,2,3 and constructed from separate metallic components,injection moulding,steel pressings, metal casting,will be the preferred method of constuction.**
5. **A holder clip as Claimed in claims 1,2,3,4 where the holder clip (1) attaches to the wheely bin (13) by spring clips.**
6. **A holder clip (1) as Claimed in claims 1,2,3,4 where the bag or sack is retained by sprung clips.**

(Use figure 8)

Amendments to the claims have been filed as follows

- 1. A holder clip (1) attaching to the upper region of wheely bins(13) of well known types, said holder clip(1) deploying sacks or bags(6) for the convenient collection of recyclable household waste,such when ever deployed,the holder clip(1) is removeably fixed to said wheely bin(13).**
- 2. A holder clip as Claimed in claim 1, the said holder clip(1), as shown in figure(3)attaches externally to the handle(8) of the wheely bin(13)such that the plastic sack or bag(6) is deployed open ready for use,this being the peferred claim of use.**
- 3. A holder clip as Claimed in claim 1, said holder clip(1)attaches internally over the upper rim of the wheely bin(13) such that whenever the lid of the wheely bin is closed the plastic sack or bag is concealed and guarded from the weather.**
- 4. A holder clip as Claimed in claims 1,2,3 and constructed from separate metalic components,injection moulding,steel pressings, metal casting,will be the preferred method of constuction.**
- 5. A holder clip as Claimed in claims 1,2,3,4 where the holder clip (1) attaches to the wheely bin (13) by spring clips.**
- 6. A holder clip (1) as Claimed in claims 1,2,3,4 where the bag or sack is retained by sprung clips.**

(Use figures 8 and 3)



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INVESTOR IN PEOPLE

Application No: GB 9916607.6
Claims searched: 1-6

Examiner: Stephen Smith
Date of search: 17 October 2000

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): A4A(AE); B8C(CM)

Int Cl (Ed.7): B65B 67/12; B65F 1/00, 1/06, 1/14

Other: ONLINE:EPODOC, JAPIO, WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X, E	GB 2340731 A (BASINGSTOKE) lines 19-24 of page 4	1, 4
X	WO 99/00307 A1 (O'HANLON) line 24 of page 1 to line 7 of page 2; lines 26-31 of page 2	1, 4
X	CH 569458 (VUILLE) spring clip 7 in the Figure	1, 3, 5, 6
X	JP 9290901 (FUKUSHIMA) Figures 1, 2 and 12	1
X	US 5314151 (CARTER-MANN) lines 7-34 of column 2	1, 3-5
X	US 4979706 (FELDMAN) lines 1-66 of column 11	1, 6
X	US 4535911 (GOULTER) lines 7-11 & 46-59 of column 1	1, 3-6

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

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